

GROSSMAN, A.

GEOSTY, A.; KALENCHUK, B.

"Thermic Method of Converting Generator Tar in Coke Gasifiers." P. 316.  
(PRZEMISŁ CHemiczny, Vol. 19, No. 6, June 1954, Warszawa, Poland)

SO: Monthly List of East European Accessions, (FEEL), 10, Vol. 4,  
No. 1, Jan. 1955 Incl.

GRUBMAN, A.

Determining the aptness of coke on the basis of the measured electric resistance of a coke lump. p. 256

MIENIA vol. 21, no. 8, Aug. 1954

Poland

50. EAST EUROPEAN ACCESSIONS LIST vol. 5, no. 10 Oct. 1956

GROSSMAN, ANDRZEJ

## CZECH

Temporary operation measures during a breakdown period in a coke-oven battery. Bohdan Kalapowski and Andrzej Grossman. *Hutnictwo* 31, 277-8 (1964).—A newly constructed coke-oven battery of 28 chambers broke down in the winter and temporary operation measures kept the battery hot during 45 days of the standstill. The temp. in the heating flues was kept at 280-300° and the reversing was carried out every 30 min., as compared to 1180° and 20 min. of reversing time before the breakdown. Coal left in the feed silo aged and later on produced coke of poorer abrasion qualities in the repaired battery (which were tested by the "Mikrum" tumbling-drum method). P. J. H.



4065

538.48 : 622.86

Grossman A., Kalinowski B., Sirszaszewska M. Research over Coal Freezing in Transport.

„Badania zamarzania węgla w czasie transportu”. Przegląd Górniczy. No. 2, 1955, pp. 74—76, 1 tab.

Although by greasing truck walls with oils, coal may be prevented from adhering to the walls, the coal still remains frozen. Sprinkling the loaded coal with various oils is ineffective. Good results have been obtained by mixing, in relation to the quantity of coal, 1 per cent of various oils; coal thus treated does not freeze even when exposed for 48 hours in a temperature of  $-18$  to  $-20^{\circ}$  centigrade. The high cost of oil and of the process, however, make this method uneconomical. The most satisfactory results are achieved by the Soviet method of drying coal to such a degree of humidity (safety humidity) that it will not freeze up.

FU

(2)

GLASSMAN, A.; KALINOWSKI, B.

Determination of mechanical properties of the packed coke charge.

p. 594, Vol. 11, no. 10, Oct. 1955. *INDUSTRIAL CHEMISTRY*. Warszawa.

See: East European Accessions List, (EAL), IC, Vol. 5, no. 2, Feb. 1956

POLAND/Chemical Technology. Chemical Products and  
Their Uses. Part III. Chemical Processing  
of Solid Fossil Fuels. H

Abs Jour : Ref Zhur-Khimiya, No 15, 1958, 51485

Author : Grossman, A.

Inst : -

Title : Effect of Moisture Content and of the  
Drying Method on Clinkering Tendency  
of Coals.

Orig Pub : Przem. chem., 1955, 11, No 11, 648-650

Abstract : As a result of research on speeding of  
coal analysis in the coal-tar industry,  
a simplification of the process of air  
drying of samples was proposed. The  
method does not affect the results of

Card : 1/2

GROSSMAN, A.

The Comparison and Significance of Various Methods of Determining the Mechanical Properties and Reactivity of Coke. A. Grossman. *Metall.*, 1950, 22, (7/8), 219-240. It is considered that the reactivity of coke is controlled by grain size and porosity, and that the present standard laboratory tests do not allow a proper evaluation of these factors. The mechanical strength tests are also considered insufficient since they often refer only to a limited range of sieve size. Permeability tests are more satisfactory in this respect. Tests should be carried out on a larger scale under conditions more closely approaching industrial practice. —W. S. & A. P.



GROSSMAN, A.

Effect of stamping of coal charges on the resistance qualities of coke. B. Kalinowski, A. Grossman, and J. Kowalski. *Hutnik* 22, 217-22 (1955). Expts. conducted in two separate batteries of coke ovens of different sizes have shown (1) increase of density of the coking blend by 36% resulted in av. improvement of coke stability by 12% and coke hardness up to 37%; (2) the av. weight of the oven charges was in case of compressed blends 23.6% higher than that of charges made from coke mix dumped in the conventional manner. M. O. Holowaty.

(2)

GROSSMAN, A.

✓ 4373. THE COKE AND CHEMICAL INDUSTRY AND THE PEACEFUL UTILIZATION OF NUCLEAR PROCESSES, Grossman, A. and Lenartowski, H. (Koks, Boka, Gaz (Coke, Tar, Gas, Stalinozrod), Jan./Mar. 1956, vol. 1, 18-23). The importance of graphite and the role of the industry as a producer of raw material for reactor graphite are discussed. The possibilities of nuclear processes as a source of electricity and of radioactive isotopes are outlined. (L).

*Nuc Sci* 2

*Andrzej Grossman*  
POLAND / Chemical Technology, Chemical Products and Their  
Application. Part 3. - Treatment of Solid Combustible  
Minerals.

H-21

Abs Jour : Ref. Zhur Khimiya, No 4, 1958, 12483.

Author : Andrzej Grossman, Jerzy Golombek.

Inst : Not given

Title : Rapid Method of Determination of Ashes in Coal and Coke.

Orig Pub : Koks, smola, gaz, 1957, 2, No 1, 20 - 22.

Abstract : A system of a laboratory tubular electric furnace for continuous ash determination in coal and coke samples was developed. A bushing of heat-resisting steel 500 mm long and 15 mm high is set in the furnace tube of the same length and 75 mm in diameter, and cups of the standard type with fuel samples to be analysed are moved along the bushing by

Card 1/2

POL 11 / Chemical Technology, Chemical Products and Their  
Application. Part 3. - Treatment of Solid Combustible  
Minerals.

H-21

Abs Jour : Ref. Zhur. Khimiya, No 4, 1958, 12463.

Abstract : a chain conveyor; O<sub>2</sub> or air necessary for the combustion  
is introduced continually into the tube. The temperature  
from 500 to 900° is maintained in the furnace with a ther-  
moregulator. 30 coal samples are analysed in such a fur-  
nace per hour at 800° and with O<sub>2</sub> supply, and 25 coal  
samples or 20 coke samples are analysed per hour at 900°  
and with air supply. The analysis results agree satis-  
factorily with results obtained by the standard method.

Card 2/2

APPROVED FOR RELEASE: Thursday, July 27, 2000  
Chemical Technology, Chemical Products. Refin-  
ing of Solid Fuels. H

CIA-RDP86-00513R000517

Abs Jour: Ref Zhur-Khimiya, 1958, No 20, 68702.

Author : Grossman A.

Inst : Not given.

Title : Additional Comments to the Grossman and Golombek's  
Article "Accelerated Method for Ash Determination  
in Coal and Coke".

Orig Pub: Koks, smola, gaz, 1957, 2, No 4, 171.

Abstract: Additional comments are made regarding the appa-  
ratus and the method employed for the determination  
of ash in coal and coke covered in an article by  
Grossman and Golombek (Ref. Zhur-Khimiya, 1958,  
12843) and that proposed by Nitaturi. An evalua-  
tion of both apparatus is given, and ranges of their  
practical application are compared.

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POLAND / Chemical Technology, Chemical Products and Their  
Application: Chemical Processing of Solid Fossil Fuels.

H-22

Abs Jour : Ref Zhur - Khimiya, No 5, 1959, No. 16821

Author : Grossman, A.

Inst : Not given

Title : Application of Radioisotopes in the Gas and Coke  
Industries

Orig Pub : Koks, smola, gaz, 1958, 3, No 3, 84-87

Abstract : Review of the latest foreign achievement in the matter  
of application of radioactive emanations for the detection  
of differences in gas densities existing in various gas  
streams of coke ovens. This review also covered applica-  
tions leading to the improved operation of oven machinery.  
-- D. Tiskarov

Card 1/1

Distr: 4E3d

Production of petroleum coke of low boron content.  
Ludwik Górski and Andrzej Grossman (Inst. Naftowy,  
Kraków, Poland). *Chem. Anal. (Warsaw)* 3, 100-6 (1958).  
Based on the hypothesis that mineral substances carry B  
(at least to some extent), it seems possible to obtain pure  
coke by pyrolysis of petroleum products. Pyrolysis of  
motor oil from the Glinnik refinery at atm. pressure gave no  
pos. results. For this reason, pyrolysis of some petroleum  
products was carried out at pressures of 40-75 atm. A 500-  
g. sample was placed in a 1-l. autoclave. The pressure was  
controlled with the aid of gases evolved during pyrolysis.  
The conditions of coking (temp. in °C. and pressure in atm.),  
the yield of coke in %, the content of B in p.p.m., and ash  
per cents were, resp.: 400, 70, 10, 0.6, and 0.33 for Polish  
petroleum from Glinnik; 410, 70, 18, 0.2, and 0.25 for pet-  
roleum Barisol from Glinnik; 400, 65, 30, 0.1, and 0.22  
for paraffin oil I from Glinnik; 400, 60, 25, 0.1, and 0.17  
for paraffin oil II from Glinnik; 400, 60, 33, —, and 0.20 for  
"minusfiltrat" from Glinnik; 440, 70, 3, 0.8, and — for crude  
paraffin wax from Glinnik; 400, 60, 47, 0.4, and 0.30 for  
cresol extract from Glinnik; 360, 40, 50, 0.2, and 0.18 for  
paraffin-oil extract from Jasko; 400, 60, 39, 0.3, and 0.18 for  
paraffin-oil extract from Jasko; 360, 75, 34, 0.1, and 0.12 for  
machine oil from crude oil contg. no paraffin from Jedlicze;  
410, 75, 30, 0.1, and 0.1 for motor oil from crude oil contg.  
no paraffin from Jedlicze; and 410, 70, 33, 0.2, and 0.15 for  
motor oil from oil contg. no paraffin from Jedlicze. Content  
of B in cokes was detd. spectrographically (cf. Skalska and  
Held, *C.A.* 31, 7088d). A comprehensive survey of the lit-  
erature is given.

POLAND/Nuclear Physics - Nuclear Technology and Power Engineering C-8

Abs Jour : Ref Zhur - Fizika, No 4, 1959, No 5288

Author : Grossman Andrzej  
Inst : -  
Title : Graphite Reactors

Orig Pub : Nukleonika, 1958, 3, No 3, 273-286

Abstract : No abstract

Card : 1/1

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APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R000517

POLAND/Chemical Technology. Chemical Products and Their Applications. Chemical Processing of Solid Fossil Fuels.

Abs Jour: Ref Zhur-Khin., No 8, 1959, 28836.

Author : Grossman, A.  
Inst : -  
Title : Anisotropic Cleavage of Cokes and Related Materials.

Orig Pub: Koks, Suola, Gaz, 13, No 1, 1-7 (1958) (in Polish with German, English, and Russian summaries)

Abstract: A number of cokes (C) have been investigated with a view towards determining their suitability for the production of graphite for nuclear reactors [control rods]. Petroleum and pitch C exhibit anisotropy as a result of which their grains take on asymmetric shapes on grinding. When these cokes

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POLAND/Chemical Technology. Chemical Products and Their  
Applications. Chemical Processing of Solid  
Fossil Fuels.

II

Abs Jour: Ref Zhur-Khirn., No 8, 1959, 28836.

are used to make blocks, the irregular shape of the grains leads to anisotropy of the graphite. The asymmetry of the grains is less pronounced in metallurgical C and is completely absent in C obtained by the pyrolysis of benzene, toluene, and naphthalene in the vapor phase. The type of grinding applied to the C is also of importance (grinding is to be preferred to crushing). -- Ya. Satunovskiy.

Card : 2/2



POLAND/Chemical Technology - Chemical Products and Their  
Application. Chemical Processing of Natural Gases  
and Petroleum. Motor and Rocket Fuels. Lubricants.

Ref Jour : Ref Zhur - Khimiya, No 10, 1959, 30425.

Author : Goscini, J., Grossmann, A.

Title : The Problem of Petroleum Coke with Low Boron Content.

Orig. Ind : Izvta (Moskva), 1958, 14, No 7, 190-195.

Abstract : Taking into consideration the fact that the B content in graphite, entering into the preparation of atomic reactors, must not exceed 0.00005% by weight, the problems of the analytical determination of B in petroleum coke, employed in the production of this graphite, and also the distribution of B in the ashes and the organic coke mass were examined. Conducted laboratory investigations indicated that: (a) the B content, in tests of Polish and imported coke, fluctuated (in the average) between 0.8 and

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POLAND/Chemical Technology - Chemical Products and Their  
Application. Chemical Processing of Natural Gases  
and Petroleum. Motor and Rocket Fuels. Lubricants.

"APPROVED FOR RELEASE: Thursday, July 27, 2000

CIA-RDP86-00513R000517

Ref Jour : Ref Zhur - Khimiya, No 10, 1959, 30425.

2.5 parts per 1 million parts; (b) marked fluctuations were observed also in specimens of the same coke lot as well as in individual parts of a coke piece; (c) decalcification of coke decreases its contamination with boron; (d) B enters into the composition of the coke as an amorphous mass incompletely, and (e) analytical tests of the coke oil vapors under pressure permitted the attainment of coke with a very low B content. Considerations were expressed about the prospects of producing coke of required purity out of the residues-aliphatic residue from the extraction treatment of petroleum products by means of their thermal reprocessing under pressure. Bibliography of 19 titles.

Card 2/2

GROSSMAN, A. ; FRANKL, A.

The dependence of the content of boron in coal tar on the property of coal and the conditions of degassing. p. 186.

KAKS, SMOLA, GAZ. Katowice, Poland. Vol. 4, no.1, July/Aug. 1959.

Monthly List of East European Accession. (BEAI) LC, Vol. 9, no.1, Jan. 1960.

Uncl.

23307

PA/7/1/104/01/002/001  
4221/A126

21.1700

AUTHORS: Grossman, Andrzej; Szmid, Zofia, and Szudek, Maria

TITLE: X-ray investigation of cokes, obtained by naphthalene pyrolysis, for its graphitization ability

PERIODICAL: Przemysł Chemiczny, v. 40, no. 1, 1961, 15-18

TEXT: The aim of this research was to find out, whether there is any dependency between conditions of coke preparation and its graphitization ability and whether the pyrolysis temperature of 1,200°C can be reduced without deterioration of coke and graphite properties. The first part of this research is the continuation of Professor B. Buras' work (Ref. 1: B. Buras, Some Experiments Concerning Pile Materials, Materiały Konferencji Genewskiej 1957, Paper 943). The pyrolysis was carried out in a ceramic pipe of 55 mm internal diameter, heated in a silicon carbide oven. The coke formed settled inside the pipe. The pyrolysis was carried out at 850, 900, 1,000, 1,100 and 1,200°C. The graphitization was carried out in a Acheson type laboratory resistance oven with square carbon electrodes. Samples of coke in closed carbon crucibles were placed in the middle of the oven. The temperature was measured by means of an optical pyrometer

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10/4/61/041/003/007  
A211/4.26

X

X-ray investigation of coke ...

Graphitization was carried out at 1,400, 1,700 and 1,900°C for four hours each time and finally for thirty hours at 2,200°C. Electric resistance drops rapidly during the intense degasification below 1,000°C, but stabilizes at higher temperatures. X-ray examination was carried out by the powder method, using the VEM apparatus, the Derye-Scherrer camera of 97.3 mm diameter and collimators with round apertures of 0.5 or 0.8 mm diameter and radiation CuK $\alpha$ . Preparations were made by careful crushing of coke or graphite into a fine powder with Canada balsam as binding agent, shaping it into needles of 0.4 to 0.6 mm thickness. For each coke sample and each roasting temperature series of photographs were taken from preparations 0.4, 0.45, 0.5 and 0.6 mm thick. Thus obtained X-ray photographs were examined by Soviet-made micro-photometer MF-2. For comparison, samples made of high-grade Swedish graphite and one made from Romanian coke were also examined. Altogether 51 samples were examined. On the basis of these investigations the Authors arrived at the conclusion that the temperature at which pyrolysis is carried out does not affect the degree of graphitization, provided that the period of graphitization is long enough. Basic physico-chemical properties of pyrolytic cokes (carbonation index, content of volatiles, real density, electric resistance and reactivity) do change in relation to temperature attained by coke, no matter whether it is attained during the pyrolysis or during

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POB/11/140/101/203/207  
A221/A.26

X-ray investigation of coke ..

subsequent roasting; only the coke porosity and its apparent density depend on the pyrolysis temperature, which exerts also a decisive influence on coke output during the thermal decomposition. There are 1 photo, 2 figures, 5 tables and 6 Soviet-bloc references.

ASSOCIATION: Politechnika Slaska (Polytechnical Institute) in Gliwice.  
Instytut Badań Jądrowych (Nuclear Research Institute) in Warsaw and  
the Zakłady Elektryczne Węglowych (Carbon Electric Plant) in Raciborz.

SUBMITTED: May 27, 1960

Card 3/3

26610

P/014/61/040/002/003/004  
A221/A126

15 22 50

AUTHORS: Grossman, Andrzej, Szmid, Zofia, and Szudek, Maria  
TITLE: X-ray examination of the graphitization ability of cokes obtained through pyrolysis of benzene and its chloroderivatives  
PERIODICAL: Przemysł Chemiczny, v. 40, no. 2, 1961, 105 - 108

TEXT: The authors decomposed benzene and its chlorine compounds by a pyrolytic process and examined the cokes thus obtained for their graphitization properties. The reason of this investigation was to confirm the findings of R. E. Franklin [Ref. 5: Acta Cryst., 4, 253 (1951); Ref. 6: Proc. Roy. Soc. (London), A209, 196 (1951); Ref. 7: Brennstoff-Chem., 34, 359 (1953)], who was of the opinion that in organic compounds rich in hydrogen some hydrogen remains in carbonization products and later fosters the process of their graphitization. On the other hand, coke obtained from substances containing little hydrogen and rich of oxygen, are reluctant in forming graphite. For their experiments the authors used benzene, chlorobenzene, meta-dichlorobenzene, 1, 2, 4 trichlorobenzene and hexachlorobenzene. For pyrolysis and graphitization, they used the same apparatus which were used earlier for similar experiments, described in Przemysł Chemiczny

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P/014/61/040/002/003/004  
A221/A126

X-ray examination of the graphitization ability of...

[Ref. 10: A. Grossman, Z. Szmid, M. Szudek, Przem. Chem., 40, (1951)]. In all instances described in this article the pyrolysis was carried out at the temperature of 1,100 C. Solid products of pyrolysis were hard coke, soft coke and soot. Hard cokes were examined in a similar way as described in the report from previous investigations. It was found that the amount of chlorine in raw materials influences not only the amount of coke produced, but its properties as well. Coke density diminishes as the content of chlorine increases, but at the same time electrical resistance of the coke increases. Pyrolytic cokes, partly graphitized cokes and graphites were examined by the Debey-Scherrer powder method, using X-ray VEM apparatus and the Phoenix lamp, cameras for powder-method examination and collimators with a round aperture of 0.5 and 0.8 mm in diameter, CuK $\alpha$  radiation at 45 kv and 14 - 16 ma. Samples for X-ray examination were prepared either by scraping the needles from graphite or shaping them from carefully powdered graphite mixed with Canada balsam. For investigation two series of independently prepared cokes were used. In the first series cokes prepared from benzene, chlorobenzene, m-dichlorobenzene, 1, 2, 4-trichlorobenzene and hexachlorobenzene were examined. They were the products of pyrolytic roasting in a laboratory oven at 1,400, 1,700 and 1,900°C, and in an industrial oven at about 2,200°C. In the second series, the products of hexachlorobenzene pyrolysis and the products of roasting at 1,900°C

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X-ray examination of the graphitization ability of...

were not examined. The roasting time of II-nd series of samples was several times longer than that of I-st series of samples and, consequently, their graphitization was much better. The higher the roasting temperature was, the more pronounced and narrower were the lines on X-ray photographs. Having examined the X-ray photograms, the authors arrived at the following conclusions: No relation between the degree of graphitization and the substratum can be confirmed. Cokes from  $C_6H_6$ ,  $C_6H_5Cl$ , and  $C_6H_4Cl_2$  graphitize easier, while with cokes from  $C_6H_3Cl_3$  this process is slower and weaker. There was no coke formed as a result of roasting the products of  $C_6Cl_6$  pyrolysis. The valuation of coke properties and results of X-ray examination, confirm in principle the role of hydrogen during the process of pyrolysis, in conformity with the interpretation suggested by Franklin (Refs. 5, 6, 7). Only if there is enough hydrogen in the substratum, the coke formed is composed of carbon and hydrogen, otherwise graphitization progresses slowly and some remaining chlorine changes its electrical resistance. The authors express their thanks to Professor B. Buras for help and critical remarks and to Professor I. G. Campbell for suggesting the investigation. There are 4 tables, 2 photos, 2 figures and 10 references: 2 Soviet-bloc and 8 non-Soviet-bloc. The references to the most recent English-language publications read as follows: C. R. Kinney, R. C. Nunn, P. L. Walker Jr, Ind. Eng. Chem., 49, 880 (1957); C. R. Kinney, Studies of Producing

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26610

P/014/61/040/002/003/004

X-ray examination of the graphitization ability of...

A221/A126

Graphitizable Carbons. Proc. Conf. on Carbon, University of Buffalo (1956).

RECEIVED May 21, 1960

ASSOCIATION: Politechnika Śląska (Silesian Polytechnical Institute) Gliwice,  
Instytut Badań Jądrowych (Institute of Nuclear Research) Warsaw,  
and Zakład Elektrod Węglowych (Carbon Electrodes Plant) in Raciborz

Card 4/4

GROSSMAN, Andrzej; PASYNKIEWICZ, Jadwiga

Oxidation of phenols in waters and sewages. Koks 2 no.2:55-62  
Mr-Apr '64.

1. Department of Technology of Water and Sewage, Silesian Technical  
University, Gliwice (for Grossman). 2. Central Laboratory of the  
Gas Industry, Warsaw (for Pasynkiewicz).

GROSSMAN, Andrzej; JASTRZEBSKI, Jerzy

Studies on the chemical composition of xylites in Polish brown coal. Pt 1. Koks 9 no.5:145-152 S-O '64.

1. Silesian Technical University, Gliwice (for Grossman).
2. Institute of Chemical Coal Processing, Zabrze (for Jastrzebski).

POLAND

GROSSMAN, A. KONOPACKA, J.

1. Silesian Polytechnic (Politechnika Slaska), Gliwice - (for Grossman);
2. Polish Academy of Sciences, Research Department (PAN-Zaklad Badan Naukowych), GOP, Zabrze.

Warsaw, Acta Geophysica Polonica, No 4, October-December 1965, pp 235-242

"Influence of geophysical agents on the radioactivity of trees."

L 58743-65 EWP(k)/EWT(d)/EWP(h)/EWA(d)/EWP(1)/EWP(v) Pf-4  
 ACCESSION NR: AR5002382 8/0271/64/000/010/A014/A014 19  
 621.398.694.4-531.7 B  
 SOURCE: Ref. zh. Avtomat., telemekh. i vychisl. tekhn. Sv. t., Abs. 10A109  
 AUTHOR: Grey, E.; Grossman, A.; Rubin, M.  
 TITLE: Compensation of temperature increment of resistance in HFN-3 high-temperature  
 tensometers 14  
 CITED SOURCE: Sb. Vysokotemperat. tenzodatchiki. M., Mashgiz, 1963, 162-169  
 TOPIC TAGS: tensometer, high temperature tensometer / HFN-3 tensometer 26  
 TRANSLATION: Low efficiency of the circuit-type compensation is proven in some  
 applications of foil-type tensometers. An apparent-deformation vs. temperature  
 curve has been plotted for correcting the results of measurement. This is  
 necessary when the structure is subjected simultaneously to mechanical strains  
 and abrupt temperature changes (aircraft). Six illustrations.  
 SUB CODE: TD, IE ENCL: 00  
 Card 1/1 *hjp*

KAL'FA, S.F., prof., GROSSMAN, A.Ya., inzh.

New photoelectroelastotonometer. Oft.zhur. 13 no.4:195-199 '58  
(MIRA 11:8)

1. Iz glaznoy kliniki (sav. - prof. S.F. Kal'fa) Odesskogo meditsinskogo instituta i kafedry fiziki Odesskogo elektrotekhnicheskogo instituta.  
(EYE, INSTRUMENTS AND APPARATUS FOR)

PIATNITSKIY, B. A.; GROSSMAN, A. Ya.; KRASNOVA, V. V.; VLASENKO, A. I.

Phosphorescence of naphthalene and some of its derivatives at  
the temperature of liquid oxygen. Izv. vys. uch. zav. fiz. 3:  
41-44 '62. (MIRA 15:10)

1. Odesskiy elektrotekhnicheskiy institut svyazi.

(Naphthalene) (Phosphorescence)  
(Low temperature research)

GROSSMAN, B.S., inzhener; BARALON, D.I., inzhener.

Parallel power supply for high voltage automatic block system lines.  
Autom., telem. i svias' no.5:36-38 My '57. (MIRA 10:7)  
(Railroads--Signaling--Block system)



Grossman, D.P.

Grossman, D. P. An estimation of the category of Lusternik-Schnirelman. U. R. (Doklady) Acad. Sci. URSS (N.S.) 54, 109-112 (1916).

Theorem: If the homotopy groups of an  $n$ -dimensional connected polyhedron  $K_n$  are trivial in dimensions  $1, \dots, k$ , then the category of  $K_n$  (on itself) is at most  $[n/(k+1)] + 1$ . The proof is based on another theorem: under the same hypothesis, if  $K_n (k+1 \leq n \leq n)$  is a subpolyhedron, then the complement (in  $K_n$ ) of the  $k$ -neighborhood of the  $(n-k-1)$ -skeleton  $K_{n-k-1}$  of  $K_n$  has category 1 in  $K_n$ . This is proved as follows: each point of the set in question is moved along a segment into that face of its carrier (in the barycentric subdivision of  $K_n$ ) which is disjoint from  $K_{n-k-1}$ ; thus the points move into the  $k$ -skeleton of the subdivision and this  $k$ -skeleton in turn is contractible in  $K_n$ , by a simple lemma. H. Samelson (Ann Arbor, Mich.).

Source: Mathematical Reviews,

Vol

8No.

6

PA 12/49T73

GROSSMAN, D. P.

USSR/Mathematics - Equations, Algebraic Aug 48  
Mathematics - Calculators

"The Use of Computers and Calculators for Solving  
Problems Dealing With Systems of Linear Algebraic  
Equations by the Integration Method," D. P.  
Grossman, 9 1/2 PP

"Iz Ak Nauk SSSR, Otdel Tekh Nauk" No 8

Describes use of calculating machines for solving  
equations. States time required for various  
operations. Submitted 17 May 48.

12/49T73

PA 163T24

GROSSMAN, D. P.

USSR/Mathematics - Approximations May/June 50

"Problem of Numerically Solving Algebraic Linear Simultaneous Equations," D. P. Grossman

"Uspekhi Matemat Nauk" Vol V, No 3 (37), pp 87-103

Basis of lecture delivered by Grossman to Div of Approximate Computations, Inst of Fine Mech and Computing Technol Acad Sci USSR. He is defending direct methods of numerical computations against iterative methods.

*Div. of Approximate Calculations, Inst. of Precision Mechanics & Computational Techniques - AS-UR, 163T24*

GROSSMAN, D. P.

USSR/Mathematics - Linear Algebras

Jan/Feb 52

"Review of V. N. Faddeyev's Book 'Computational Methods of Linear Algebra,'" D. P. Grossman

"Uspekhi Matemat Nauk" Vol VII, No 1 (47), pp 211-215 .

Despite the indicated deficiencies the reviewed book unconditionally remains useful to a large circle of engineers and mathematicians who are occupied with applied scientific research work; the appearance of the book should be welcomed. Published in Moscow/Leningrad by Gostekhizdat, (State Technical Press) 1950, 250 pages, 5,000 copies, 9.85 rubles.

204T32

GROSSEMAN, D. P., Reviewer

Matrixes

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